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REMARKS

The Office Action mailed on September 22, 2006 has been reviewed and the Examiner's comments have been carefully considered. Claims 14-78 were previously canceled. New claims 84-95 are added. Therefore, claims 1-13 and 79-95 are now pending in this case.

Claims 1 and 10 are now amended to recite that the filtering of the working fluid produces a permeate and a concentrate which are routed along two different flow paths. This is explained in paragraphs 0080-0081, 0083, 0088-0090 and FIGS. 7, 8 and 14 of the written description.

Support for the new dependent claims 85-86 pertaining to the cross flow membrane is found in paragraph 0085 of the written description. Support for dependent claims 87-89 and 92-93 pertaining to cooling is found in paragraphs 0074-0076 of the written description. Support for claims 90-91 which recite filtering of the condensate is disclosed in paragraphs 0089 and 0090 of the written description. Support for claims 94 and 95 regarding the spinning disc is found in paragraph 0057 of the written description.

I. Claims 1, 2, 6, 7, 9 and 81 are not obvious under 35 USC §103(a) and over Estes et al. (US 2002/0056164) in view of Haase (US 3,733,267)

The USPTO states that "It would have been obvious to one of ordinary skilled in the art at the time the invention was made to modify the methods taught by Estes, et al. by incorporating the cross flow and absorbent filters taught by Haase because the Haase teaches the moisture absorption benefits imparted by these filters to non-aqueous dry cleaning fluids and dry cleaning applications."

Applicants maintain that a prima facie case of obviousness under 35 U.S.C. §103(a) has not been established by the cited art of record. Applicants maintain that Haase does not disclose a cross membrane filter as recited in Applicants' invention. Haase discloses conventional dead-end filtering in which one fluid stream passes through a filter and the particulates are trapped. Haase discloses sequential filtering by a pre-filter to remove large particles followed by a primary filter which removes small insoluble particles, followed by the filter-adsorber to remove

dissolved foreign materials including water. (see col. 1, lns. 21-47). The pre-filters have a large vertical surface compared to the horizontal surface and in fact their principle filtering surface is vertical (col. 6, lns. 58-64).

The cross membrane filtering step of Applicants' invention as recited in claim 1 is very different than the cross-flow filtering described in Haase. The filtering process of Haase is a single-pass or dead-ended filtration process which uses a filter bag. However, in Applicants' invention, as the working fluid is moved through the cross-flow membrane, two flow streams are formed. The condensate, which carries the materials excluded by the membrane pores, is free to continue through a circulation loop while the permeate is transported through the membrane pores and transported along a separate channel. Discussion of cross membrane filtration and the concentrate stream and permeate streams are described in paragraphs 0080-0081 and 0088-0090 and FIGS. 7, 8, and 14 of the written description.

Although the wash fluid of Haase may be forced to flow along the vertical surface of the dead-ended pre-filter, such flow which is described by the USPTO as "cross" flow, does not rise to the level of Applicants' cross membrane filter which yields the flow of two streams, namely the permeate and the condensate, which are routed along different paths. Paragraph 0081 of the written description describes the flow of permeate which exits the cross flow membrane and paragraph 0088 discloses that the "concentrate takes another path" as it exits the cross flow membrane, and each of these flow streams allow for optional processing of the permeate and the condensate. Claim 1 now amended recites both the permeate and condensate which are areach routed along a different flow path.

With regard to claim 81, neither of the cited references disclose the step of filtering the permeate which exits a cross membrane filter, through an absorption filter to produce a second permeate that is substantially a purified working fluid and is greater than about 90% free from contaminants.

Accordingly, applicants respectfully request withdrawal of the rejection of claims 1, 2, 6, 7, 9, 81 which are believed to be in condition for allowance.

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II. Claims 8, 9, 82 and 83 are not obvious over 35 USC §103(a) over Estes et al. (US 2002/0056164) in view of Radomyselski et al. (US 2003/0226214).

The USPTO states that, "It would have been obvious to one of ordinary skilled in the art at the time the invention was made to modify the methods taught by Estes et al. by incorporating contaminant removal levels and dual filters including absorbent type filters taught by Radomyselski et al. because Radomyselski et al. teaches the benefits of dual filtering in providing low contaminant levels thus enhanced cleaning in subsequent wash cycles."

Applicants submit that a prima facie case of obviousness under 35 USC§103(a) has not been established by the cited art of record because none of the cited references disclose the step of cooling the working fluid to decrease the dissolved soils in the working fluid as recited in claim 8. Details regarding the step of cooling the working fluid are described in paragraphs 0074-0076 of the written description.

Accordingly, Applicants respectfully request withdrawal of the rejection of claim 8 and claims 9, 82 and 83, dependent therefrom, and which are believed to be in condition for allowance.

III. Claims 5, 7 and 80 are not obvious 35 USC §103(a) over Estes et al. (US 2002/0056164) in view of Haase (US 3,733,267) and further in view of Radomyseiski (US 2003/0226214).

The USPTO states that "It would have been obvious to one of ordinary skilled in the art at the time the invention was made to modify the methods taught by Estes et al. and Haase to incorporate the contaminant removal levels in surfactants taught by Radomyselski et al. because Radomyselski et al. teaches the benefits in providing low contaminant levels in dry cleaning levels in dry cleaning fluids for the purpose of re-use and thus enhance cleaning in subsequent wash cycles, and Radomyselski et al. further teaches the conventionality of surfactants of the of the claimed HLB range in dry cleaning methods."

Applicants maintain that claims 5, 7, and 80 are ultimately dependent from claim 1 and are not obvious over the cited reference for the reasons stated above with regards to claim 1. Specifically, the does not disclose a method of cleaning which includes the step of filtering the

working fluid through a cross membrane filter as defined by the embodiments of Applicants' invention.

With regard to dependent claims 5, 7 and 80 which further define the purity of the working fluid, the HLB balance of the surfactant, and the purity of the second permeate, respectively, the USPTO erroneously assumes that such characteristics can be achieved by methods of filtering described in Haase and Radomyselski et al., and which are different than Applicants' step of filtering using a cross membrane filter.

Accordingly, applicants respectfully request withdrawal of the rejection of claims 5, 7, 80 which are believed to be in condition for allowance.

IV. Claims 10 and 11 are not obvious 35 USC §103(a) over Estes et al. (US 2002/0056164) in view of Radomyseiski et al. (US 2003/0226214) and further in view of Haase (US 3,733,267).

The USPTO states that it would have been obvious to one of ordinary skilled in the art "to modify the methods taught by Estes, et al., Radomyselski et al., by incorporating the cross-flow and absorbent bed filters taught by Haase because the Haase teaches the moisture absorption benefits imparted by these filters to non-aqueous dry cleaning fluids and dry cleaning applications."

Claim 10 now recites a working fluid that is filtered through a cross flow membrane filter to create a permeate and a condensate. The cross membrane filtering step of Applicants' invention as recited in claim 10 is different than the cross-flow filtering described in Haase, as described above with respect to claim 1. Discussion of cross membrane filtration and the concentrate stream and permeate streams are described in paragraphs 0080-0081 and 0088-0090 of the written description.

Furthermore, claims 10 and 11 depend from claim 8, and none of the cited references disclose the step of cooling the working fluid to decrease the dissolved soils in the working fluid as recited in claim 8.

Accordingly, applicants respectfully request withdrawal of rejection of claims 10 and 11 which are believed to be in condition for allowance.

V. Claims 3 and 4 are not obvious 35 USC §103(a) over Estes et al. (US 2002/0056164), in view of Haase (US 3,733,267) and further in view of Berndt et al. (US 6,059,84S).

The USPTO states it would have been obvious to one of ordinary skilled in the art "to modify the methods taught by Estes, et al. and Haase to incorporate the spin discs taught by Berndt et al. because Berndt et al. teaches the benefits of utilizing spin discs in combination of class 3-A solvents for effectively dry cleaning fabrics."

Applicants maintain that claims 3 and 4 depend from claim 1 and are not obvious over the cited reference for the reasons stated above with regards to claim 1. Specifically, the does not disclose a method of cleaning which includes the step of filtering the working fluid through a cross membrane filter.

In addition, Applicants wish to point out that the step of passing vapors from the working fluid against the spinning disk recited in claim 3 is different than the step of passing a solvent through the diatomaceous earth spin disc filter disclosed in Berndt et al. (See col. 3 lines 56-60). Paragraph 0057 of the written description discloses that the spin disc provides a cooler surface for condensing vapors rather than filtering liquid solvent, and specifically, condensing working fluid vapor, water vapor, or both, when the air containing vapor contacts the spin disc.

Berndt et al. discloses that vapor is condensed by passing over cooling coils of a condenser 36 (col. 4, lines 23-28). The USPTO has not made clear where it is disclosed that the spin disc filtration system of Berndt et al. removes working fluid vapor and water vapor from the air stream by the spin disk filter.

Accordingly, applicants respectfully request withdrawal of rejection of claims 3 and 4 which are believed to be in condition for allowance.

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VI. Claims 12 and 13 are not obvious 35 USC §103(a) over Estes et al. (US 2002/0056164) in view of Radomyseiski et al. (US 2003/0226214) and further in view of Berndt et al. (US 6,059,845).

The USPTO states that it would have been obvious to one of ordinary skilled in the art to modify the methods taught by Estes et al. and Radomyselski et al. to incorporate the spin discs taught by Berndt et al. because Berndt et al. teaches the benefits of utilizing spin discs in combination of 3-A solvents for effectively dry cleaning fabrics.

Claims 12 and 13 ultimately depend from claim 8. Applicants submit that a prima facie case of obviousness under 35 U.S.C. §103(a) has not been established by the cited art of record because none of the cited references disclose the step of cooling the working fluid to decrease the dissolved soils in the working fluid as recited in claim 8.

In addition, the spin disc filtration system of Berndt et al. does not disclose removing working fluid vapor nor water vapor from the air stream as discussed above with respect to claims 3 and 4.

Accordingly, applicants respectfully request withdrawal of claim 12 and 13 which are believed to be in condition for allowance.

VII. Claims 1, 2, 6, 79 and 81 are not obvious 35 USC §103(a) over Estes et al. (US2002/0056164) in view of Ehrnsperger, et al (US6,855,173).

The USPTO states that it would have been obvious to one of ordinary skilled in the art to modify the methods taught by Estes, et al. by incorporating the cross membrane and absorbent bed filters taught by Ehrnsperger et al. because the Ehrnsperger et al. teaches facilitation of lipophilic fluid recovery imparted by these filters in recycling non-aqueous dry cleaning fluids and dry cleaning applications.

Ehrnsperger, et al. discloses a process for removing water from a lipophilic fluid and water emulsion by exposing the emulsion to an absorbent matrix comprising an absorbent material.

Applicants maintain that Ehrnsperger et al. does not disclose a cross membrane filter as recited in Applicants' invention. Ehrnsperger et al. does not disclose a cross membrane filter which yields the flow of two streams exiting the filter, namely the permeate and the condensate, as now recited in claim 1.

Accordingly, applicants respectfully request withdrawal of rejection of claims 1, 2, 6, 79 and 81 which are believed to be in condition for allowance.

VIII. Claims 5, 7 and 80 are not obvious 35 USC §103(a) over Estes et al. (US 2002/0056164) in view of Ehrnsperger et al. (US 6,855,173) and further in view of Radomyseiski (US 2003/0226214).

The USPTO states that it would have been obvious to one of ordinary skilled in the art to incorporate the contaminate removal levels and surfactants taught by Radomyselski et al. because Radomyselski et al. teaches the benefits of providing low contaminant levels in dry cleaning fluids for the purpose of re-use and thus enhances cleaning in subsequent wash cycles.

Applicants maintain that claims 5, 7, and 80 are ultimately dependent from claim 1 and are not obvious over the cited reference for the reasons stated above with regards to claim 1 in view of Ehrnsperger et al. Specifically, Ehrnsperger et al. do not disclose a method of cleaning which includes the step of filtering the working fluid through a cross membrane filter.

Accordingly, applicants respectfully request withdrawal of rejection of claims 5, 7 and 80 which are believed to be in condition for allowance.

IX. Claims 10 and 11 are not obvious 35 USC §103(a) over Estes et al. (US 2002/0056164) in view of Radomyseiski (US 2003/0226214) and further in view of Ehrnsperger, et al (US 6,855,173).

The USPTO states that it would have been obvious to one of ordinary skilled in the art to modify the methods taught by Estes, et al. and Radomyselski et al. by incorporating a cross membrane and absorbent bed filters taught by Ehrnsperger et al. and that one of ordinary skill would have been motivated to combine the teachings of the references absent an unexpected

result.

Applicants submit that claims 10 and 11 depend from claim 8, and none of the cited references disclose the step of cooling the working fluid to decrease the dissolved soils in the working fluid as recited in claim 8. Furthermore, Ehrnsperger et al. do not disclose a method of cleaning which includes the step of filtering the working fluid through a cross membrane filter.

Accordingly, applicants respectfully request withdrawal of rejection of claims 10 and 11 which are believed to be in condition for allowance.

X. Claims 3 and 4 are not obvious 35 USC §103(a) over Estes et al. (US 2002/0056164), in view of Ehrnsperger et al (US 6,855,173) and further in view of Berndt et al. (US 6,059,845).

The USPTO states that it would have been obvious to one of ordinary skilled in the art to modify the methods taught by Estes et al. and Ehrnsperger et al. to incorporate the spin discs taught by Berndt et al. because Berndt et al. teaches the benefits of utilizing spin discs in combination with class 3-A solvents.

Applicants maintain that claims 3 and 4 depend from claim 1 and are not obvious over the cited reference for the reasons stated above with regards to claim 1 and Ehrnsperger et al. Specifically, Ehrnsperger et al. do not disclose a method of cleaning which includes the step of filtering the working fluid through a cross membrane filter.

In addition, the use of spin discs are not obvious as claimed because they are used for different purposes, namely to condense vapor and not to filter fluid as described above.

Accordingly, applicants respectfully request withdrawal of claim 3 and 4 which are believed to be in condition for allowance.

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Conclusion

In summary, Applicants believes that this Amendment is fully responsive to the Office Action mailed on September 22, 2006, and that Applicants' claims include features that patentably define over the cited references. Based on the amendments to this application and the foregoing discussion, it is respectfully requested that claims 1-13 and 79-83, and new claims 84-95 of this application be found in condition for allowance. If the Examiner believes there are any further matters, which need to be discussed in order to expedite the prosecution of the present application, the Examiner is invited to contact the undersigned.

In the event there are any fees necessitated by the foregoing communication, please charge such fees to our Deposit Account No. 50-0959 referencing our Docket No. US20010201 (094342.0029).

Respectfully submitted,
ROETZEL & ANDRESS

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